

2. We note that DISH recently filed an amendment to its application providing updated technical information regarding EchoStar 14's antennas and requesting a waiver of the Commission's rules regarding cross polarization isolation requirements for certain transmit and receive spot beams.⁵ We defer consideration of operating authority for the particular beams addressed in the amendment. We will address DISH's amendment and waiver request separately.⁶

II. BACKGROUND

3. DBS space stations serving the United States are governed by the Commission's policies and rules. Their operations are also governed by the International Telecommunication Union (ITU) Radio Regulations. In some frequency bands, the ITU Radio Regulations assign spectrum and orbital locations for the Broadcasting-Satellite Service (BSS) to individual nations.⁷ Under the terms of the ITU Region 2 BSS and Feeder Link Plans (Region 2 BSS Plans), the United States is assigned eight orbital locations for providing BSS, three of which can provide coverage of the 48 contiguous United States.⁸ Currently, the U.S. orbital assignments are separated by at least nine degrees.

4. DISH provides DBS service to consumers in the United States from satellites operating at the 61.5° W.L., 110° W.L., and 119° W.L. Region 2 BSS Plan locations.⁹ DISH plans to operate the technically improved EchoStar 14 satellite with the EchoStar 7 satellite at the nominal 119° W.L. orbital location. DISH states that EchoStar 14 is capable of operating all of its channels on a large beam that serves the United States, including Alaska and Hawaii. DISH states that the EchoStar 14 satellite will help it improve the efficiency with which it uses spectrum and will facilitate compliance with the Commission's high-definition must-carry requirements.¹⁰

5. DISH's application was placed on a public notice on September 4, 2009.¹¹ In response to the Public Notice, Spectrum Five filed a Petition for Imposition of Conditions on DISH's authorization.¹²

⁵ 47 C.F.R. §§ 25.210(i) and 25.215.

⁶ The amendment, IBFS File No. SAT-AMD-20100212-00027, was placed on Public Notice on February 26, 2010. *Public Notice*, Policy Branch Information, Report No. SAT-00667 (Feb. 26, 2010).

⁷ BSS is the international term used for a radiocommunication service in which the signals transmitted or retransmitted by space stations are intended for direct reception by the general public. *See* 47 C.F.R. § 2.1. DBS is the term used in the United States to describe the domestic implementation of the BSS international service in the 12.2-12.7 GHz frequency bands. *See* 47 C.F.R. § 25.201, at definition of "Direct Broadcast Satellite Service," and 47 C.F.R. 25.202(a)(7). The ITU Radio Regulations divide the world into three Regions. In general, Region 1 includes Africa, Europe, Northern and Western portions of Asia; Region 2 includes the Americas and Greenland; and Region 3 includes southern portions of Asia, Australia and the South Pacific. *See* ITU Radio Regulations, Article 5, Section 1.

⁸ The eight U.S. DBS orbital positions, proceeding from east to west (all West Longitude), are 61.5°, 101°, 110°, 119°, 148°, 157°, 166°, and 175°. The three CONUS locations are 101° W.L., 110° W.L., and 119° W.L.

⁹ DISH also operates or leases capacity at other orbital locations to provide DBS services.

¹⁰ DISH Operating L.L.C., IBFS File No. SAT-LOA-20090518-00053, Narrative at 3.

¹¹ *Public Notice*, Policy Branch Information, Report No. SAT-00630 (Sept. 4, 2009).

¹² Prior to the Public Notice, on June 17, 2009, Spectrum Five filed a letter asserting that DISH's application was defective and should be dismissed as unacceptable for filing. *See* Letter to Marlene H. Dortch, Secretary, FCC, from Howard Waltzman, Counsel for Spectrum Five LLC (June 17, 2009). DISH filed a response. *See* Letter to Marlene H. Dortch, Secretary, FCC, from Pantelis Michalopoulos, Counsel for EchoStar Satellite Operating L.L.C. Upon review of the application, Spectrum Five's letter, and DISH's response, the Bureau's staff found the application to be acceptable for filing.

In 2006, the International Bureau granted Spectrum Five's request for access to the U.S. market to provide DBS service using two Netherlands-authorized satellites from the 114.5° W.L. orbital location.¹³ The 114.5° W.L. orbital location is between the 110° W.L. and 119° W.L. Region 2 BSS Plan orbital locations assigned to the United States. Spectrum Five's grant included conditions to ensure that its satellites would not cause interference to any satellites operating at Region 2 BSS Plan orbital locations, including the U.S. orbital locations, pending the Commission's adoption of final rules governing service to the United States from "reduced-spacing" locations.¹⁴ Spectrum Five's primary concern with the proposed EchoStar 14 satellite relates to EchoStar 14's operating parameters, which Spectrum Five states exceed those in the existing Region 2 BSS Plans.¹⁵ Spectrum Five maintains that, as a result, EchoStar 14 will substantially interfere with Spectrum Five's proposed DBS system. Spectrum Five alleges that its system has ITU date-filing priority over filings for EchoStar 14.¹⁶ Spectrum Five states that DISH is required to coordinate with Spectrum Five but has not yet commenced coordination. Further, Spectrum Five states that DISH has not taken the steps necessary to modify the Region 2 BSS Plans.¹⁷ Spectrum Five, therefore, asks us to condition EchoStar 14's authorization to restrict the satellite's operations to power levels specified in the existing Region 2 BSS Plans, until coordination is completed. Spectrum Five maintains that such a condition on EchoStar 14's authorization is required under Bureau precedent.¹⁸

6. DISH responds that the Bureau has a means of protecting unbuilt DBS systems with a prior ITU filing date by requiring operators of lower-priority DBS systems to coordinate with operators of higher-priority DBS systems as the higher-priority systems are brought into use.¹⁹ DISH states that this policy allows licensees to operate at power levels in excess of Region 2 BSS Plan parameters until a higher-priority DBS system becomes operational, at which point the U.S. licensee is required to coordinate its operations or to operate within the Region 2 BSS Plan parameters.²⁰ DISH maintains that this enables improved DBS services to be delivered to U.S. consumers more quickly, without causing any interference to higher-priority DBS systems entitled to protection.²¹ DISH also states that the EchoStar 14 satellite will not substantially increase the amount of interference to Spectrum Five's operations at 114.5° W.L. DISH states it would accept a condition similar to the one imposed on its EchoStar 11

¹³ Spectrum Five, LLC, Petition for Declaratory Ruling to Serve the U.S. Market Using Broadcast Satellite Service (BSS) Spectrum from the 114.5° W.L. orbital location, *Order*, 21 FCC Rcd 14023 (Int'l Bur., 2006) (*Spectrum Five Grant*).

¹⁴ See Amendment of the Commission's Policies and Rules for Processing Applications in the Direct Broadcast Satellite Service; Feasibility of Reduced Orbital Spacing for Provision of Direct Broadcast Satellite Service in the United States, IB Docket 06-160, *Notice of Proposed Rulemaking*, 21 FCC Rcd 9443 (2006). The Commission determined that if an applicant could coordinate its proposal with other U.S. DBS operators and secure agreement with other operators already having assignments in the Region 2 BSS Plans or with prior requests for plan modifications, then its rules permitted the consideration of applications, absent its completion of a rulemaking proceeding.

¹⁵ *Spectrum Five Petition* at 2.

¹⁶ *Spectrum Five Petition* at 3.

¹⁷ *Spectrum Five Petition* at 11. We note that, on August 25, 2009, the Commission filed a request with the ITU Radiocommunication Bureau to modify the Region 2 BSS Plans to incorporate the characteristics of DISH's EchoStar 14 satellite, which has the ITU network name USABSS-31.

¹⁸ *Spectrum Five Petition* at 12-13, citing to e.g. DIRECTV Enterprises, LLC, *Order and Authorization*, 19 FCC Rcd 7754 (Sat. Div., Int'l Bur. 2004).

¹⁹ DISH Operating L.L.C., Opposition to Petition for Imposition of Conditions (Oct. 15, 2009) (*DISH Response*).

²⁰ *DISH Response* at 2.

²¹ *DISH Response* at 4.

authorization, which required DISH to coordinate with the operator of any higher-priority DBS system once the higher-priority system is brought into use.²²

III. DISCUSSION

7. In evaluating DBS space station applications, we examine, among other things, whether the DBS system will be operated in accordance with the ITU Radio Regulations. The regulations governing DBS operations are contained in Appendices 30 and 30A of the ITU Radio Regulations. The regulations require administrations to seek modifications to the applicable regional BSS Plans if the technical parameters of a proposed DBS system vary from those set forth for frequency assignments in those BSS Plans.²³ Further, the regulations provide that, if the proposed modification may affect other frequency assignments, the administration proposing the modification must seek agreement from administrations responsible for the affected systems or services.²⁴ Thus, where an applicant proposes to operate outside of the parameters in the Region 2 BSS Plans, the Commission has granted such applications subject to a condition that requires the licensee to obtain agreement or complete coordination before it receives interference protection. The Commission has also imposed an additional condition advising the licensee that if coordination is not completed the Commission may impose additional terms and conditions as necessary to effect coordination or obtain agreement.²⁵

8. The Commission's rules codify this approach. Section 25.111(c) of the rules provides:

In the Direct Broadcast Satellite service, applicants and licensees shall also provide the Commission with all information it requires in order to modify the Appendix 30 Broadcasting-Satellite Service ("BSS") Plans and associated Appendix 30A feeder-link Plans, if the system uses technical characteristics differing from those specified in the Appendix 30 BSS Plans, the Appendix 30A feeder link Plans, Annex 5 to Appendix 30 or Annex 3 to Appendix 30A. For such systems, no protection from interference caused by radio stations authorized by other Administrations is guaranteed until the agreement of all affected Administrations is obtained and the frequency assignment becomes a part of the appropriate Region 2 BSS and feeder-link Plans. Authorizations for which coordination is not completed and/or for which the necessary agreements under Appendices 30 and 30A have not been

²² *DISH Response* at 2. The EchoStar 11 authorization includes the following condition: "If coordination for EchoStar 11 has not been completed and/or necessary agreements under Appendices 30 and 30A have not been obtained with a space station network having ITU date of receipt priority, and if a space station network with superior ITU date of receipt priority is brought into use at its assigned location and receives harmful interference, then EchoStar 11 must modify its operations to not exceed the technical specifications of the nominal 110° W.L. location in the Region 2 BSS plan, as such specifications would be modified by the then pending EchoStar 8 plan modification proposal (to the extent the EchoStar 8 proposal has ITU date of receipt priority with respect to the space station network brought into use)." Spectrum Five LLC, Petition for Clarification of Condition in EchoStar 11 License, *Order*, 23 FCC Rcd 12786, 12788-89 (Int'l Bur. 2008).

²³ The modification procedures for the Region 2 BSS Plans are stipulated in Section 4.2 of Article 4 of Appendices 30 and 30A of the ITU Radio Regulations.

²⁴ Annex 1 of Appendices 30 and 30A provide the methodology and criteria to be used for determining whether a proposed DBS system may cause interference to other systems.

²⁵ DIRECTV Enterprises, *Order and Authorization*, 21 FCC Rcd 8028 (Sat. Div., Int'l Bur. 2006); 47 C.F.R. § 25.111(a).

obtained may be subject to additional terms and conditions as required to effect coordination or obtain the agreement of other Administrations.²⁶

9. Spectrum Five seeks to impose conditions on the EchoStar 14 license that go beyond the coordination requirements in the Commission's rules. Specifically, Spectrum Five asks us to impose a condition identical in substance to a condition placed on the EchoStar-86.5W authorization. The condition provided that:

Any operations of EchoStar-86.5W shall be conducted in a manner that does not exceed the interference limits in Annex 1 to Appendices 30 and 30A of the ITU Radio Regulations within the service areas of any affected operators. Upon a showing to the Commission of successful coordination with any such affected operator (pursuant to the Article 4.2 of Appendices 30 and 30A of the Radio Regulations), EchoStar may operate in a manner consistent with such coordination.²⁷

Spectrum Five argues that it is an "affected operator" and, therefore, DISH should be prevented from operating with parameters in excess of those specified in the Region 2 BSS Plans until coordination is completed, as was the case in the EchoStar-86.5W authorization.

10. The EchoStar-86.5W authorization included this condition to protect space stations already operating and providing service to customers. Specifically, EchoStar sought to operate a satellite at the 86.5° W.L. orbital position, while two Canadian satellites were in orbit and operating at the 82° W.L. and 91° W.L. Region 2 BSS Plan locations. The condition ensured that there would be no interference to existing operations.²⁸ The *Spectrum Five Grant* included a similar condition to protect space stations already operating and providing service.²⁹ Thus, in both instances, the Bureau included a condition prohibiting the proposed satellites from operating with powers exceeding the ITU interference limits until coordination with relevant operational systems was completed. Imposing this condition on DBS satellites when their operations could adversely affect ongoing operations of other satellite systems is fully consistent with our obligations under ITU regulations. Spectrum Five, however, is not yet operating a satellite at 114.5° W.L. Thus, there is no evidence to indicate an imminent commencement of operations by an "affected network" under the ITU Radio Regulations.³⁰

²⁶ 47 C.F.R. § 25.111(c).

²⁷ EchoStar Satellite LLC, *Order and Authorization*, 21 FCC Rcd 14045, 14059 (Int'l Bur. 2006) (*EchoStar-86.5W Authorization*).

²⁸ *EchoStar- 86.5W Authorization*, 21 FCC Rcd at 14048.

²⁹ That condition states:

Spectrum Five may operate feeder links and service links originating or terminating in the United States on its Spectrum 1A and Spectrum 1B satellites in a manner that does not exceed the interference limits in Annex 1 to Appendices 30 and 30A of the ITU Radio Regulations at any location within the U.S. service areas of affected operators. Upon a showing to the Commission of successful coordination with any affected operator (pursuant to Article 4.2 of Appendices 30 and 30A of the Radio Regulations), Spectrum Five may operate in a manner consistent with such coordination.

Spectrum Five Grant, 21 FCC Rcd at 14042-43.

³⁰ Spectrum Five also refers to the DIRECTV 7S and EchoStar 8 authorizations, in which the Bureau imposed a condition similar to that in the EchoStar 86.5W authorization, in response to concerns raised by SES Americom about potential interference to its proposed but unlaunched UK-filed BSS space station network at the 105.5° W.L. orbital location. *Spectrum Five Petition* at 13. In both of these authorizations, operations of the space stations were
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11. Adopting Spectrum Five's proposed conditions would impose unnecessary constraints on EchoStar 14's operations. While the Commission is committed to its international coordination responsibilities, coordination with other administrations is not a prerequisite to grant of U.S. DBS space station licenses to U.S. operators, particularly for networks that are not yet operational.

12. For similar reasons, we also conclude that the condition proffered by DISH is inappropriate, as it may unduly constrain operations based upon plan modification proposals for which agreement has not been reached. Accordingly, as is our standard practice, we condition EchoStar 14's authorization consistent with Section 25.111(c) our rules.

IV. CONCLUSION AND ORDERING CLAUSES

13. We find that granting DISH's application to operate the EchoStar 14 satellite (Call Sign S2790) at the 118.9° W.L. orbital location is in the public interest. Accordingly, IT IS ORDERED, that the applications of DISH Operating L.L.C., for modification of authority to operate at 118.9° W.L. and to construct, launch, and operate the EchoStar 14 satellite, IBFS File Nos. SAT-LOA-20090518-00053 and SAT-AMD-20090604-00064, are GRANTED, in part.

14. IT IS FURTHER ORDERED that DISH Operating L.L.C.'s request for operating authority with respect to beams A01-A04, A07, A13, A20, A22-26, B07, B08, B10, B22 and R1 IS DEFERRED, pending action on and without prejudice to, IBFS File No. SAT-AMD-20100212-00027.

15. IT IS FURTHER ORDERED that DISH Operating L.L.C. is authorized to operate the EchoStar 14 satellite with feeder links (Earth-to-space) in the 17.3-17.8 GHz band and service links (space-to-Earth) in the 12.2-12.7 GHz band on DBS channels 1-21 for all beams except A01-A04, A07, A13, A20, A22-26, B07, B08, B10, B22 and R1, in accordance with the terms, conditions, and technical specifications set forth in its application, the Federal Communication Commission's rules, and the conditions set forth below:

- a. DISH Operating L.L.C. must maintain the EchoStar 14 satellite at 118.9° W.L. with ± 0.05 degree longitudinal station keeping. DISH shall not operate the EchoStar 14 space station outside of these station-keeping limits without further authorization.
- b. DISH Operating L.L.C. is authorized to operate the on-station command links of the EchoStar 14 satellite using one megahertz of occupied bandwidth at each of the uplink center frequencies 17794 MHz (right-hand circular polarization) and 17797 MHz (right-hand circular polarization); and operate the on-station telemetry links of the EchoStar 14 space station using one megahertz of occupied bandwidth at each of the downlink center frequencies 12692 MHz (right-hand circular polarization) and 12698.5 MHz (right-hand circular polarization). DISH Operating L.L.C. is also authorized to operate the pointing beacon link of the EchoStar 14 satellite using 30 kHz of occupied bandwidth at the uplink frequency 17799.75 MHz (right-hand circular polarization).

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conditioned consistent with the Commission's rules that the space stations could "not cause greater interference than that which would occur from the current USA Plan assignments... to other BSS or feeder link assignments or other services or space station systems, *operating* in accordance with the ITU Radio Regulations." See EchoStar Satellite Corporation, *Order and Authorization*, 17 FCC Rcd 11326, 11329 (Sat. Div., Int'l Bur. 2002), and DIRECTV Enterprises, LLC, *Order and Authorization*, 19 FCC Rcd 7754, 7758 (Sat. Div., Int'l Bur. 2004) (*emphasis added*). Thus neither licensee was required to limit its space stations parameters for systems that were not yet operational.

c. The license term for the EchoStar 14 satellite is 10 years and will begin to run on the date the licensee certifies to the Commission that the satellite has been successfully placed into orbit and its operation fully conforms to the terms and conditions of this authorization. 47 C.F.R. § 25.121(a)(2). DISH Operating L.L.C. shall file this certification with the Chief, Satellite Division, International Bureau, within 10 business days of the satellite being put into operation.

d. Pursuant to Section 25.111(c) of the Commission's rules, 47 C.F.R. § 25.111(c), DISH Operating L.L.C. shall provide the Commission with all information it requires in order to modify the Appendix 30 Region 2 Broadcasting-Satellite Service Plan and associated Appendix 30A Region 2 feeder-link Plan to incorporate the characteristics of the Direct Broadcast Satellite Service satellite network EchoStar 14, USABSS-31, in accordance with the ITU Radio Regulations. DISH Operating L.L.C. shall be held responsible for all cost recovery fees associated with these ITU filings. No protection from interference caused by radio stations authorized by other Administrations is guaranteed until the agreement of all affected Administrations is obtained and the frequency assignment becomes a part of the appropriate Region 2 BSS and feeder-link Plans. If coordination has not been completed and/or for which the necessary agreements under Appendices 30 and 30A have not been obtained, this license may be subject to additional terms and conditions as required to effect coordination or obtain the agreement of other Administrations.

e. In connection with the provision of service in any particular country, DISH Operating L.L.C. is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

16. DISH Operating L.L.C. is afforded thirty days from the date of release of this order and authorization to decline this authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the authorization as conditioned.

17. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Roderick K. Porter
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